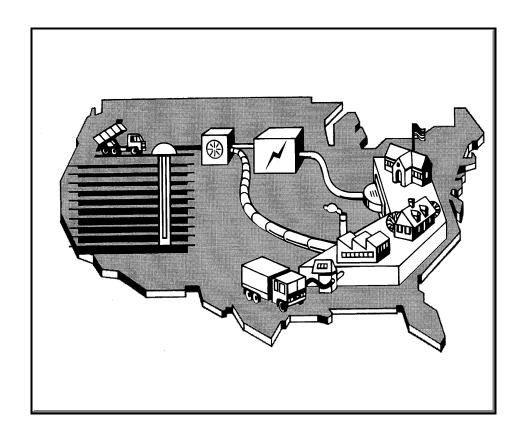


Landfill Gas-to-Energy Project Opportunities

Landfill Profiles for the State of Missouri





EPA Landfill Methane Outreach Program



The EPA Landfill Methane Outreach Program, a key component of the United State's *Climate Change Action Plan*, encourages the use of landfill gas (LFG) as an energy resource. EPA assists utilities,

municipal and private landfill owners and operators, tribes, and state agencies in reducing methane emissions from landfills through the development of profitable landfill energy recovery projects. Methane captured from landfills can be transformed into a cost-effective fuel source for electricity, heat, boiler and vehicular fuel, or sale to a pipeline. EPA estimates there are approximately 200 landfill methane recovery projects in the U.S. and that up to 750 landfills could install economically viable landfill energy projects.

The Landfill Methane Outreach Program includes five important components: the State Ally, Energy Ally, Industry Ally, Community Partner, and Endorser programs. EPA establishes separate alliances with state agencies, energy providers (including investor-owned, municipal and other public power utilities and cooperatives), key trade and public sector associations, members of the landfill gas development industry (including developers, engineers, equipment vendors, and others) and local communities, municipalities and landfill owner/operators through a Memorandum of Understanding (MOU). By signing the MOU, each Ally/Partner acknowledges a shared commitment to the promotion of landfill gas-to-energy recovery at solid waste landfills, recognizes that the widespread use of landfill gas will reduce emissions of methane and other gases, and commits to undertake activities to enhance development of this resource. In return, EPA agrees to provide landfill gas-to-energy project assistance and public recognition of the Allies' and Partners' participation in the program.

Introduction

Since 1994 the U.S. EPA's Landfill Methane Outreach Program (LMOP) has participated in an ongoing effort to gather information on Municipal Solid Waste landfills (MSW). A key component of the LMOP is to provide MSW landfill owners and operators, project developers, utilities, and other potential project participants with information on MSW landfills that may offer attractive energy development opportunities. This document presents state specific landfill information, hereinafter referred to as the landfill profiles. These profiles are useful to evaluate the potential for developing landfill gas-toenergy projects (LFGTE). EPA assembled this information from state and local sources as well as various national solid waste publications, landfill owners and operators, and project developers.

The EPA has prepared a separate document to describe the methodology used to develop the state-specific landfill profiles and estimate the benefits of using LFGTE as an energy source. The document, Landfill Gas-to-Energy Project Opportunities, Background Information on Landfill Profiles, contains background information on gas collection and use, describes the data fields according to the five sections listed on the landfill profiles, and where applicable, illustrates calculations and default values used to derive estimates. EPA strongly recommends that users read the document prior to using the landfill profiles. Users can obtain the document by calling the LMOP hotline at 1-888-STAR-YES.

Data Sources

- EPA-ORD Landfill Gas Utilization-Survey (Thorneloe, 1997)
- Directory and Atlas of Solid Waste Disposal Facilities (SWA, 1994)
- Implementation Guide for Landfill Gas Recovery Projects in the Northeast (SCS, 1994)
- Landfill Gas-to-Energy 1994-1995 Activity Report (SWT, 1994)
- Methane Recovery from Landfill Yearbook (GAA, 1994)
- · Project developers, landfill owners, and operators
- · State and local records
- · Survey of Landfill Gas Generation Potential (EPRI, 1992)
- U.S. Landfill Directory (SWANA, 1992)

Landfill Classification

To facilitate the use of available landfill information, EPA has categorized the landfills into five categories: Current Project, ¹ Candidate Project, Shutdown, Other, and Unknown waste-in-place (WIP). These categories are based on the status of the landfill's LFGTE project(s) and WIP. The generation of methane is a function of many factors, the most critical being the amount of waste-in-place and the number of years the waste has been in the landfill. Peak methane generation occurs soon after closure; therefore, the longer the landfill has been closed, the less attractive it becomes for methane recovery. Based on the general timing of peak methane generation, EPA assumes that landfills that ceased accepting waste prior to 1993 have a low probability of generating enough methane to make a gas recovery project economical. Consequently, landfills need to be operating in 1993 to be considered as having a Candidate Project.

Landfill Categorizes

Current Project:

 Landfill with operational LFGTE project or landfill with LFGTE project under construction.

Candidate Project:

- Landfill with a potential or planned LFGTE utilization project; or
- Landfill is currently operating or closed after 1993; and has more than 1,000,000 tons of municipal solid waste-inplace.²

Shutdown:

· Landfill with shutdown LFGTE project.

Other

 Landfill has less than 1,000,000 tons of municipal solid waste-in-place with no current or planned LFGTE project.

Unknown WIP:

 Landfill with insufficient data to determine the waste-inplace

State Summary

State-specific landfill profile information is summarized in three exhibits. Exhibit 1 presents a summary of the state-specific potential for LFG utilization energy by landfill category. Exhibit 2 summarizes the emissions avoided by fossil fuel displacement for electricity generation and direct use projects. Exhibit 3 presents an index of the state-specific MSW landfills, referenced by category, landfill name and general characteristics.

² By modeling the relationship between WIP and methane generation, a cut-off of 1,000,000 tons of WIP was established; landfills having at least 1,000,000 tons of WIP are considered candidate landfills.



¹ Current projects illustrate the wide range of successful project development options.

Exhibit 1: Missouri MSW Landfill Summary

Category	No. of	. ,			Methane F		CO2 Equivalent of CH4		
	Landfills	Electricity (MW)	Gas Capacity (mmBtu/hr)	Generation (mmscf/d)	(tons/yr)		Reduc (tons		
					Potential	Current	Potential	Current	
Current	4	25	249	8	46,013	9,636	966,263	202,356	
Candidate	15	64	641	21	118,562	25,054	2,489,808	526,126	
Other	65	30	300	10	55,590	0	1,167,388	0	
Unknown WIP	21								
Total	105	119	1,190	38	220,165	34,690	4,623,459	728,482	

Exhibit 2: Potential Missouri Emissions Avoided by Fossil Fuel Displacement

Category		Electricity Generation Project						Direct Use Project					
	CC	CO2 (tons/yr)			SO2 (tons/yr) CO			02 (tons/	/yr)	SO2 (tons/yr)			
	Coal	Oil	Natural Gas	Coal	Oil	Natural Gas	Coal	Oil	Natural Gas	Coal	Oil	Natural Gas	
Current	195,741	160,655	108,027	1,237	1,034	0	138,560	113,724	76,470	1,261	663	1	
Candidate	505,137	414,593	278,778	3,193	2,669	0	357,033	293,037	197,042	3,249	1,708	2	
Other	235,205	193,045	129,807	1,487	1,242	0	167,402	137,396	92,387	1,523	801	0	
Unknown WIP													
Total	936,082	768,293	516,612	5,917	4,945	0	662,996	544,157	365,899	6,033	3,172	3	

Exhibit 3: Index of Landfills in Missouri

0-1	L an dill Name			oi Landinis i			1.50	Status of LECTE
Category	Landfill Name		WIP		Landfill Operating in	LFG Collected	LFG Utilization	Status of LFGTE Project
		<2.5 million tons	2.5 to 4 million tons	>4 million tons	1998		Project	Froject
Current	Fred Weber SLF			V		✓	✓	Operational
Current	Fred Weber SLF			✓	✓		✓	Operational
Current	Rumble SLF II			✓	✓	✓	✓	Operational
Current	West County Disposal SLF			✓	✓			Construction
Candidate	Backridge SLF	✓			✓			Unknown
Candidate	Butler County SLF	✓						Potential
Candidate	Central Missouri SLF	✓			✓			Unknown
Candidate	City of Columbia SLF	✓			✓			Planned
Candidate	Lamar SLF			✓	✓			Unknown
Candidate	Land & Resources Recovery SLF	✓			✓			Potential
Candidate	Lemons SLF	✓						Unknown
Candidate	Missouri Pass SLF			V	✓			Unknown
Candidate	Newton-McDonald County SLF		✓					Potential
Candidate	Show Me Regional SLF	✓			✓			Potential
Candidate	Southeast SLF			V	✓	✓		Planned
Candidate	Springfield SLF			✓	✓			Planned
Candidate	St. Joseph City SLF		✓		✓			Planned
Candidate	Wayne County SLF	✓			✓			Potential
Candidate	West Lake SLF			✓	✓			Planned
Other	3M Company Nevada Missouri Plant S	✓						Unknown
Other	A & M SLF	✓						Unknown
Other	Atchison County SLF	✓						Unknown
Other	Autoshred Incorporated SLF	✓						Unknown
Other	Black Oak Recycling & Disposal SLF	✓			✓			Unknown
Other	Boonville SLF	✓						Unknown
Other	Cape Girardeau SLF	✓						Unknown
Other	Centralia SLF	✓						Unknown
Other	Centropolis SLF	✓						Unknown
Other	Crawford County SLF	✓						Unknown
Other	Doniphan Municipal SLF	✓						Unknown
Other	Edward Mehl SLF	✓						Unknown
Other	Ellis Scott SLF	✓			✓			Unknown
Other	Farmer's Stone Product Company SLF	✓						Unknown
Other	Fort Leonard Wood SLF	✓						Unknown
Other	Fredericktown City SLF	✓						Unknown
Other	Fulton SLF	✓						Unknown
Other	Gasconade-Morrison SLF	✓						Unknown
Other	Generally Hauling SLF	✓						Unknown
Other	Hannibal SLF	✓						Unknown

December 05, 1998

Exhibit 3: Index of Landfills in Missouri

Category	Landfill Name		WIP		Landfill	LFG Collected	LFG Utilization	Status of LFGTE
		<2.5 million tons	2.5 to 4 million tons	>4 million tons	Operating in 1998		Project	Project
Other	Henderson SLF	✓						Unknown
Other	Henry County SLF	✓						Unknown
Other	Hermann SLF	✓						Unknown
Other	J-Z Disposal SLF	✓						Unknown
Other	Jackson SLF	✓						Unknown
Other	Joplin - Route P SLF	✓						Unknown
Other	Kahle SLF	✓			✓			Unknown
Other	Lake City Army Ammun Plant SLF	✓			✓			Unknown
Other	Lee's Summit SLF	✓						Unknown
Other	Lemons SLF, Incorporated	✓			✓			Unknown
Other	Marshall City SLF	✓						Unknown
Other	Maryville SLF	✓			✓			Unknown
Other	Mexico SLF	✓						Unknown
Other	Midwest SLF	✓						Unknown
Other	Moberly Municipal SLF	✓			✓			Unknown
Other	Modern Sanitation SLF	✓						Unknown
Other	Montgomery City SLF	✓						Unknown
Other	National Refactories & Mining SLF	✓						Unknown
Other	Nevada SLF	✓						Unknown
Other	New Halls Ferry SLF	✓						Unknown
Other	New Madrid County SLF	✓						Unknown
Other	Northside SLF	✓			✓			Unknown
Other	Northwest SLF	✓						Unknown
Other	Pemiscot County SLF	✓						Unknown
Other	Perry County SLF	✓						Unknown
Other	Phelps County SLF	✓						Unknown
Other	Renfro's SLF	✓						Unknown
Other	Rye Creek SLF	✓			✓			Unknown
Other	Salem SLF	✓						Unknown
Other	Savannah SLF	✓						Unknown
Other	St. Francois County SLF	✓						Unknown
Other	St. Jude Industrial Park SLF	✓						Unknown
Other	Sutton & Sons SLF	✓			✓			Unknown
Other	T&C Disposal Incorporated SLF	✓						Unknown
Other	Teter SLF	✓			✓			Unknown
Other	Viburnum City SLF	✓						Unknown
Other	Warren SLF	✓						Unknown
Other	Washington County SLF	✓						Unknown
Other	Washington SW Municipal Stuetterman	✓						Unknown

Exhibit 3: Index of Landfills in Missouri

Category	Landfill Name		WIP		Landfill	LFG Collected	LFG	Status of LFGTE
		<2.5 million tons	2.5 to 4 million tons	>4 million tons	Operating in 1998		Utilization Project	Project
Other	Wat-Park SLF	✓						Unknown
Other	Welston SLF	✓						Unknown
Other	West Plains City SLF	✓						Unknown
Other	Willow Springs SLF	✓						Unknown
Other	Woods Chapel SLF			✓		✓		Unknown
Other	Ziegenbein SLF	✓						Unknown
Unknown WIP	Ava Missouri SLF							Unknown
Unknown WIP	Bernie SLF							Unknown
Unknown WIP	Brown SLF							Unknown
Unknown WIP	Clinton SLF				✓			Unknown
Unknown WIP	Double D SLF							Unknown
Unknown WIP	Everett Quarries SLF				✓			Unknown
Unknown WIP	Galloway Enterprises, Incorporated SL				✓			Unknown
Unknown WIP	George Ryberg's SLF				✓			Unknown
Unknown WIP	Hunter SLF				✓			Unknown
Unknown WIP	Kaiser Refractories SLF				✓			Unknown
Unknown WIP	Lamona Landfill							Unknown
Unknown WIP	Midwest Method Land Management SL							Unknown
Unknown WIP	Mississippi County SLF							Unknown
Unknown WIP	ML&S Waste Service Incorporated SLF				✓			Unknown
Unknown WIP	Morgan County SLF							Unknown
Unknown WIP	Nelanco Limited SLF							Unknown
Jnknown WIP	Sedalia SLF							Unknown
Unknown WIP	Sunray of Joplin, Incorporated SLF				✓			Unknown
Unknown WIP	W&W Trans, Incorporated SLF				✓			Unknown
Unknown WIP	Webster County SLF							Unknown
Unknown WIP	Wheeling Disposal Service Co. Incorpo				✓			Unknown

			Backridge			Landfill Cat	egory: Candidate			
		A. GE	NERAL LANDFILL	INFO	RMATION					
Landfill Owner:	BFI Di	st.		Annua	l Acceptance Rate (tons):	101,458			
Landfill Owner Type:				Year A	Annual Acceptance I	Rate Reported:	1994			
Alternative Landfill N	ame: Schrod	er SLF		Design	Capacity (tons):					
City:					Currently Landfilled	l (acres):				
County:	Lewis				ge Depth (feet):					
State:	MO			_	-in-Place (tons):		990,132			
Year Open:	1977				Vaste-in-Place (tons	•)•	1,089,145			
Year Closed:	2000			1,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	rasic in 1 tace (tons	<i>)</i> .	1,005,115			
Tear closed.	2000	В.	LANDFILL GAS C	DFILL GAS COLLECTION						
Ed all All C	(
Estimated Methane Ge	-	f/d):		0	.70					
LFG Collection System										
Current LFG Collected										
Collection and Treatm	ent System Requ				No					
		C	. LANDFILL GAS U	TILIZ	ATION					
Current Utilization:										
Utilization Syster	n Status:	Unknown								
Utilization Syster	n Type:	Unknown								
Utilization Syster	n Start Year:									
Electric Utility Pr	ovider(s):									
Natural Gas Prov										
Energy Purchaser	* *									
25	(-)-									
Capacity:		Electricity	Generation Project (N	MW)	OR	Direct Use Project (mm	nBtu/hr)			
Estimated Potenti	al Capacity:				2		22			
Current Capacity:					-					
Planned Capacity										
Traininea Capacity	•									
Utilities in County:		Lewis County	Rural Elec Coop Ass	n; Miss	ouri Rural Electric	Coop; Southwestern Pow	ver Admin; Un			
		D. ENVIR	ONMENTAL BENEI	FITS O	F UTILIZATION					
			Pe	otential	!	Curre	ent			
Methane Reduction (to	ons/yr):				4,027		0			
CO2 Equivalent of CH	- ·	ns/vr):			84,573		0			
					,					
Emissions Avoided by	Fossil Fuel Disp	placement:	Electricity Ger	neratio	n Project	Direct Use I	Project			
			CO2 (tons/yr)	5	SO2 (tons/yr)	CO2 (tons/yr)	SO2 (tons/yr)			
		Coal:	17,364		110	12,128	110			
		Fuel Oil:	14,252		92	9,954	58			
	Ν	atural Gas:	9,583		0	6,693	0			
			E. CONTACT INFO)RMA'	TION	<u> </u>				
		Landfill O		/ 1XIVI/1 .	11011	Landfill Operator				
Contact Name:	m ~	Lundini		Т	m	Zanariii Operator				
Contact Name:	Terry Cooney				Tony Witte					
Mailing Address:	2020 Jennifer l	Lane			P.O. Box 430					
Phone Number:	217-223-4100				31-465-4240					
					JI 70J-7470					



Fax Number:

			Butler County			Landfill Cate	egory: Candidate			
		A. GI	ENERAL LANDFILL I	INFORM	IATION					
Landfill Owner:	Allied '	Waste Industries	A	Annual A	cceptance Rate (tons):	102,870			
Landfill Owner Type:	Private		Y	Year Ann	ual Acceptance l	Rate Reported:	1994			
Alternative Landfill Na	me:		Γ	Design Ca	apacity (tons):					
City:	Poplar	Bluff	A	Acres Cur	rently Landfilled	d (acres):	80			
County:	Butler		A	Average I	Depth (feet):		23			
State:	MO		V	Waste-in-Place (tons):			1,012,942			
Year Open:	1980		1	1998 Waste-in-Place (tons): 1,012,942						
Year Closed:	1996									
		В	. LANDFILL GAS COLLECTION							
Estimated Methane Ger	neration (mmsc	f/d)·		0.68						
LFG Collection System		<i>γ,α)</i> .		0.00						
Current LFG Collected										
Collection and Treatme		uirad Undar NSD	S/EC:	No						
Conection and Treatme	iii Systeiii Keqi		C. LANDFILL GAS UT							
		•	. LANDFILL GAS UI	ILIZAI	ION					
Current Utilization:										
Utilization System		Potential								
Utilization System	• •	Unknown								
Utilization System										
Electric Utility Pro		Missouri Ele	ctric Co.							
Natural Gas Provid	der(s):									
Energy Purchaser(s):									
Capacity:		Electricit	y Generation Project (M	IW)	OR	Direct Use Project (mm	ıBtu/hr)			
	1.0		y concrution 110ject (ivi			Zireet ese 115jeet (iiiii				
Estimated Potentia	il Capacity:			2			21			
Current Capacity:							_			
Planned Capacity:				0.7			9			
Utilities in County:		Clay County	y Electric Coop Corp; Ozark Border Electric Coop; Poplar Bluff Municipal Utilities; South							
		D. ENVIR	ONMENTAL BENEF	ITS OF U	UTILIZATION					
			Poi	tential		Curre	ent			
Methane Reduction (tor	is/yr):				3,915		0			
CO2 Equivalent of CH4	Reduction (to	ns/yr):			82,207		0			
		,			•					
Emissions Avoided by F	Fossil Fuel Disp	olacement:	Electricity Gene		-	Direct Use I	Project			
			CO2 (tons/yr)	SO ₂	? (tons/yr)	CO2 (tons/yr)	SO2 (tons/yr)			
		Coal:	16,575		105	11,788	107			
		Fuel Oil:	13,604		88	9,675	56			
	N	atural Gas:	9,147		0	6,506	0			
			E. CONTACT INFOI	RMATIC)N					
		Landfill (Landfill Operator				
Contact Name:	Tim Selsor	Zunami		т	im Selsor	operator				
	1 1111 DE1201			1	III SCISUI					
ļ .				- 1						
Mailing Address:	Star Route 4			R	Loute 3, Box 663					



Fax Number:

			Central Missouri Sl	F	Landfill Cate	egory: Candidate
		A G	ENERAL LANDFILL INF		Lanajiii Cate	gory. Candidate
7 1001 0					· · ·	
Landfill Owner:		Missouri Landf		al Acceptance Rate		55,878
Landfill Owner Type:	Private			Annual Acceptance	e Rate Reported:	1994
Alternative Landfill N				gn Capacity (tons):	1-4 ().	21
City:	Sedalia Pettis			s Currently Landfil	led (acres):	21
County: State:	MO			rage Depth (feet): te-in-Place (tons):		1 417 442
Year Open:	MO 1975			e-m-Place (tons): Waste-in-Place (to	ang).	1,417,442 1,546,301
Year Closed:	2002		1990	wasie-in-Flace (io	ms).	1,340,301
Teal Closed.	2002		B. LANDFILL GAS COLL	ECTION		
Estimated Methane Ge	eneration (mmsc			0.81		
LFG Collection System		,				
Current LFG Collected						
Collection and Treatm		uired Under NSI	PS/EG:	No		
			C. LANDFILL GAS UTIL	ZATION		
Current Utilization:						
Utilization Syster	n Status:	Unknown				
Utilization Syster		Unknown				
Utilization Syster						
Electric Utility Pr	ovider(s):					
Natural Gas Prov	ider(s):					
Energy Purchaser	r(s):					
G		T31	C C C D C CANA	OP	D' (II D ' (/	D. 4.
Capacity:		Electrici	ty Generation Project (MW)	OR	Direct Use Project (mm	
Estimated Potent				3		25
Current Capacity:						
Planned Capacity	:			1.0		13
Utilities in County:		Central Miss	souri Elec Coop Inc; CO-MC	Electric Coop Inc;	Missouri Public Service Co	Div; Southw
		D. ENVII	RONMENTAL BENEFITS	OF UTILIZATIO	ON	
			Potent	ial	Curre	nt
Methane Reduction (to	ons/yr):			4,703		0
CO2 Equivalent of CH	14 Reduction (to	ns/yr):		98,769		0
Emissions Avoided by	Fossil Fuel Disp	olacement:	Electricity Generat	-	Direct Use I	-
		<i>C</i> 1	CO2 (tons/yr)	SO2 (tons/yr)	CO2 (tons/yr)	SO2 (tons/yr)
		Coal:	19,732	125	14,163	129
		Fuel Oil:	16,195	104	11,625	68
	N	latural Gas:	10,890	0	7,817	0
			E. CONTACT INFORM	ATION		
		Landfill	Owner		Landfill Operator	
Contact Name:	Darlene Keele,	President		Douglas Whitel	head	
Mailing Address:	P.O. Box 405			P.O. Box 405		
Phone Number:	816-826-9133			816-826-9133		
Fax Number:						



			City of Columbia S	LF		Landfill Cat	egory: Ca	ndidate
		A. G	ENERAL LANDFILL INF		ION		-841)1 -1	
Landfill Owner:	City of	Columbia	Ann	ual Accept	ance Rate ((tons):	12	25,000
Landfill Owner Type	-	Corumoru		-		Rate Reported:		1998
Alternative Landfill N				gn Capacit	-			
City:	Columl	bia			y Landfille	d (acres):		107
County:	Boone			rage Depth	_	,		40
State:	MO			te-in-Place			1,23	35,220
Year Open:	1985		1998	8 Waste-in-	Place (ton	s):	1,44	11,090
Year Closed:	2030							
			B. LANDFILL GAS COLL	ECTION				
Estimated Methane G	Generation (mmsc	f/d):		0.79				
LFG Collection Syste	-	<i>yy.</i>						
Current LFG Collecte								
Collection and Treatr	` ,	uired Under NS	PS/EG:	No				
			C. LANDFILL GAS UTIL	IZATION				
Current Utilization:								
Utilization Syste	em Status:	Planned						
Utilization Syste		Unknown						
Utilization Syste								
Electric Utility I		City of Colu	ımbia Water and Light Dept.					
Natural Gas Pro		Ameren	C I					
Energy Purchaser(s): RheoChem Manufacturing Co., Uponor ETI								
Capacity:		Electric	ity Generation Project (MW)	С)R	Direct Use Project (mn	nBtu/hr)	
Estimated Poten				3				25
Current Capacity	y:							
Planned Capacit	y:			1.7				13
Utilities in County:		Boone Flec	tric Cooperative; Centralia Po	ower & Lio	tht Dent: C	'olumbia Wtr & Light De	nt: Howard	Fle
Cunites in County.			RONMENTAL BENEFITS		_		pt, 110 ward	
		D. ENVI	I		IZATION			
			Potent	ial		Curr	ent	
Methane Reduction (1	- ·				4,548			0
CO2 Equivalent of C	H4 Reduction (to	ns/yr):			95,502			0
Emissions Avoided by	y Fossil Fuel Disi	placement:	Electricity Generat	ion Proiec	t	Direct Use	Project	
			CO2 (tons/yr)	SO2 (ton		CO2 (tons/yr)	SO2 (to	ons/vr)
		Coal:	19,732	,	125	13,695	,	125
		Fuel Oil:	16,195		104	11,240		66
	N	latural Gas:	10,890		0	7,558		0
			E. CONTACT INFORM	ATION				
		Landfill	Owner			Landfill Operator		
Contact Name:	Lowell Patters	on, Director of I	Public Works	Mark 1	Russell, La	andfill Superintendent		
Mailing Address:	P.O. Box N			P.O. B	Box N			
<u> </u>		5700 Peabody Rd.				5700 Peabody Rd.		
Phone Number:	573-886-0722	3-886-0722 573-886-0722						
Fax Number:	0.0000122							
raa mullioet.				3/3-88	86-0268			



			Fred Weber	SLF		Landfill Categor	y: Current
		A. GI	ENERAL LANDFILL	INFORMAT	ION	, ,	<u> </u>
Landfill Owner:	Fred W	eber, Inc		Annual Accep	tance Rate	(tons):	316,144
Landfill Owner Type:	Private					Rate Reported:	1998
Alternative Landfill N	ame: North S	SLF		Design Capaci	-	1	
City:	Maryla	nd Heights		Acres Current	-	d (acres):	78
County:	St. Lou	_		Average Deptl	-		200
State:	MO			1998 Waste-ii		s):	5,406,271
Year Open:	1979			1998 Waste-in	-Place (ton	s):	5,406,271
Year Closed:							
		В	. LANDFILL GAS CO	OLLECTION			
Estimated Methane Ge	eneration (mmsc	rf/d):		1.80			
LFG Collection System	n Status:						
Current LFG Collected	d (mmscf/d):			0.3			
Collection and Treatm	ent System Req	uired Under NSP	S/EG:	Yes			
		(C. LANDFILL GAS U	TILIZATION	1		
Current Utilization:							
Utilization Syster	n Status:	Operational					
Utilization System		Direct Therm	al				
Utilization Syster	n Start Year:	1986					
Electric Utility Pr	rovider(s):						
Natural Gas Prov	ider(s):						
Energy Purchases	r(s):	Fred Weber I	nc., Pattonville High So	chool, Sc			
Capacity:		Electricit	y Generation Project (N	(W) (OR T	Direct Use Project (mmBtu	/hr)
Estimated Potent	ial Capacity:			6			56
Current Capacity	:						6
Planned Capacity	:						
Utilities in County:		Kirkwood El	ectric Light Dept; Unio	n Electric Con	npany		
			ONMENTAL BENEF			Ī	
		D. ENVIR			LIZATION	I	
			Pa	otential	10.411	Current	1.15
Methane Reduction (to	• '				10,411		1,156
CO2 Equivalent of CH	14 Reduction (to	ns/yr):			218,639		24,282
Emissions Avoided by	Fossil Fuel Disp	placement:	Electricity Gen	eration Projec	ct	Direct Use Proj	ect
			CO2 (tons/yr)	SO2 (to		CO2 (tons/yr)	SO2 (tons/yr)
		Coal:	44,200		279	31,353	285
		Fuel Oil:	36,277		234	25,733	150
	Λ	latural Gas:	24,393		0	17,303	0
			E. CONTACT INFO	RMATION			
		Landfill C	Owner			Landfill Operator	
Contact Name:	Marcus Ramse	ey, President		Willia	am Powell,	President	
Mailing Address:	2320 Creve Co	-				r Mill Road	
Maning Address.	P.O. Box 2501				Box 2501	ii iviiii Noad	
Phone Number:	314-344-0070			314-3	44-0070		
Fax Number:							

* Itallicized indicates values estimated by EPA.



Page:

			Fred Weber S	SLF		Landfill Catego	ry: Current
		A. GE	NERAL LANDFILL		ION	,	
Landfill Owner:	Fred W	eber, Inc.		Annual Accep	tance Rate (tons):	316,144
Landfill Owner Type:	Private					Rate Reported:	1994
Alternative Landfill N				Design Capaci	-		
City:		nd Heights		Acres Currentl	-	d (acres):	78
County:	St. Lou	_		Average Deptl	-		200
State:	MO			1998 Waste-ii		s):	5,406,271
Year Open:	1979		1	1998 Waste-in	-Place (tons	s):	5,406,271
Year Closed:	1995						
		В	. LANDFILL GAS CO	DLLECTION			
Estimated Methane Ge	eneration (mmsc	rf/d):		1.80			
LFG Collection System	n Status:		Op	erational			
Current LFG Collected	d (mmscf/d):			0.3			
Collection and Treatm	ent System Req	uired Under NSP	S/EG:	Yes			
		C	. LANDFILL GAS UT	TILIZATION	I		
Current Utilization:							
Utilization Syster	n Status:	Operational					
Utilization Syster		Boiler					
Utilization System	n Start Year:	1996					
Electric Utility Pr	rovider(s):						
Natural Gas Prov	ider(s):						
Energy Purchases	r(s):	Fred Weber,	Inc., Pattonville High So	chool, S			
					_		
Capacity:		Electricit	y Generation Project (M	(W)	OR T	Direct Use Project (mmBt	ı/hr)
Estimated Potent	ial Capacity:			6			56
Current Capacity	:						6
Planned Capacity	:						
Utilities in County:		Kirkwood Ele	ectric Light Dept; Unior	n Electric Con	npany		
•			ONMENTAL BENEF				
		D, Er, VIII		tential	312:1110:1	Current	
 Methane Reduction (to	mc/vr)·		10	ieniiai	10,411	Current	1,156
CO2 Equivalent of CH	• .	nchr).		,	218,639		24,282
CO2 Equivalent of CI		ns/ yr).			210,037		24,262
Emissions Avoided by	Fossil Fuel Dis	placement:	Electricity Gene	eration Projec	et	Direct Use Pro	iect
			CO2 (tons/yr)	SO2 (to	ıs/yr)	CO2 (tons/yr)	SO2 (tons/yr)
		Coal:	44,200		279	31,353	285
		Fuel Oil:	36,277		234	25,733	150
	λ	latural Gas:	24,393		0	17,303	0
		diurai Gas.		DMATION		17,505	
		Landfill C	E. CONTACT INFO	KMATION		Landfill Operator	
Contact Name:	William Powe		WHEI	Willis	ım Powell, l	•	
Mailing Address:	2320 Creve Co P.O. Box 2501			1	Creve Coeu Box 2501	r Mill Road	
Phone Number:	314-344-0070			314-3	44-0070		
Fax Number:							
1	1						

* Itallicized indicates values estimated by EPA.



			Lamar SLI	7		Landfill Categor	y: Candidate
		A. G	ENERAL LANDFILL I	NFORMAT	ION		
Landfill Owner:	BFI		A	nnual Accept	tance Rate (to	ons):	165,053
Landfill Owner Type:	Private		Y	ear Annual A	Acceptance Ra	ate Reported:	1994
Alternative Landfill N	ame:		Г	esign Capaci	ty (tons):		
City:	Lamar		A	cres Currentl	y Landfilled	(acres):	53
County:	Barton		Α	verage Deptl	n (feet):		
State:	MO		1	1998 Waste-ir	n-Place (tons)	:	5,889,957
Year Open:	1977		1	998 Waste-in	-Place (tons).	:	5,889,957
Year Closed:	2012						
		I	B. LANDFILL GAS CO	LLECTION			
Estimated Methane Ge	eneration (mmsc	f/d):		1.92			
LFG Collection System	m Status:						
Current LFG Collected	d (mmscf/d):						
Collection and Treatm	ent System Requ	uired Under NSF	PS/EG:	No			
			C. LANDFILL GAS UT	TLIZATION	I		
Current Utilization:							
Utilization Syster	n Status:	Unknown					
Utilization Syster	n Type:	Unknown					
Utilization Syster	n Start Year:						
Electric Utility Pr	rovider(s):						
Natural Gas Prov	ider(s):						
Energy Purchaser	c(s):						
Canacity		Electrici	ty Generation Project (M	W) (OR .	Direct Use Project (mmBtu/	/hr)
Capacity:		Eleculor	ty Generation Project (M)K	Direct Ose Project (IIIIIBtu/	
Estimated Potent				6			60
Current Capacity:							
Planned Capacity	:						
Utilities in County:		Barton Coun	ty Elec Coop Inc; Empire	e District Elec	ctric Co; Lam	ar Water & Electric Plant; I	iberal Ele
		D. ENVIR	RONMENTAL BENEFI	TS OF UTII	LIZATION		
			Pot	ential		Current	
Methane Reduction (to	ons/yr):				11,127		0
CO2 Equivalent of CH	- ·	ns/yr):			233,661		0
Emissions Avoided by	Fossil Fuel Disp	olacement:	Electricity Gene			Direct Use Proje	
			CO2 (tons/yr)	SO2 (tor	ıs/yr)	CO2 (tons/yr)	SO2 (tons/yr)
		Coal:	47,357		299	33,506	305
		Fuel Oil:	38,868		250	27,501	160
	N	atural Gas:	26,136		0	18,492	0
			E. CONTACT INFOR	PMATION		,.,-	-
		Landfill (MATION		Landfill Operator	
Contact Name:	John Rean Dir	ector of Marketi	nσ	Iohn l	Rean Directo	or of Marketing	
			···b			_	
Mailing Address:	757 North Eldr	-			orth Eldridge		
	P.O. Box 3151			P.O. I	3151 Box 3151		
Phone Number:	281-870-7450			281-8	70-7450		
Fax Number:				281-5	84-8043		
* Itallicized indicates v	values estimated	by EPA.	Dec	ember 5, 199	8	State: MO Pag	ge: 7

^{*} Itallicized indicates values estimated by EPA.

Land & Resources Recovery SLF Landfill Category: Candidate A. GENERAL LANDFILL INFORMATION Landfill Owner: Allied Waste (old LWS) Annual Acceptance Rate (tons): 99,868 Landfill Owner Type: Private Year Annual Acceptance Rate Reported: 1994 Alternative Landfill Name: Design Capacity (tons): City: Jefferson City Acres Currently Landfilled (acres): 46 County: Cole Average Depth (feet): State: MO Waste-in-Place (tons): 1.616.893 Year Open: 1979 1,796,548 1998 Waste-in-Place (tons): Year Closed: 2000 **B. LANDFILL GAS COLLECTION** Estimated Methane Generation (mmscf/d): 0.88 LFG Collection System Status: Current LFG Collected (mmscf/d): Collection and Treatment System Required Under NSPS/EG: No C. LANDFILL GAS UTILIZATION Current Utilization: **Utilization System Status:** Potential Utilization System Type: Unknown Utilization System Start Year: Electric Utility Provider(s): Natural Gas Provider(s): Energy Purchaser(s):

Capacity: Electricity Generation Project (MW) OR Direct Use Project (mmBtu/hr)

Estimated Potential Capacity: 3 27

Current Capacity: 1.4 17

Utilities in County: CO-MO Electric Coop Inc; Southwestern Power Admin; Three Rivers Electric Coop; Union Electric C

D. ENVIRONMENTAL BENEFITS OF UTILIZATION Potential Current Methane Reduction (tons/yr): 5.073 0 CO2 Equivalent of CH4 Reduction (tons/yr): 106,541 0 Emissions Avoided by Fossil Fuel Displacement: Electricity Generation Project Direct Use Project CO2 (tons/yr) SO2 (tons/yr) CO2 (tons/yr) SO2 (tons/yr) Coal: 21,311 135 15,278 139 Fuel Oil: 17,491 113 12,539 73 Natural Gas: 11.761 0 0 8,432 E. CONTACT INFORMATION

Landfill Owner Landfill Operator

Contact Name: Rick Graham, Division Manager Rick Graham, Division Manager

Mailing Address: P.O. Box 1007 P.O. Box 1007

Phone Number: 314-635-8805 314-634-8805

* Itallicized indicates values estimated by EPA.

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Fax Number:

Lemons SLF Landfill Category: Candidate A. GENERAL LANDFILL INFORMATION Landfill Owner: Annual Acceptance Rate (tons): 25,887 Landfill Owner Type: Private Year Annual Acceptance Rate Reported: 1994 Alternative Landfill Name: Design Capacity (tons): City: Dexter Acres Currently Landfilled (acres): County: Stoddard Average Depth (feet): State: MO Waste-in-Place (tons): 1,881,554 1974 Year Open: 1,881,554 1998 Waste-in-Place (tons): Year Closed: 1994 **B. LANDFILL GAS COLLECTION** 0.90 Estimated Methane Generation (mmscf/d): LFG Collection System Status: Current LFG Collected (mmscf/d): Collection and Treatment System Required Under NSPS/EG: No C. LANDFILL GAS UTILIZATION Current Utilization: **Utilization System Status:** Unknown Utilization System Type: Unknown Utilization System Start Year: Electric Utility Provider(s): Natural Gas Provider(s): Energy Purchaser(s): Capacity: Electricity Generation Project (MW) OR Direct Use Project (mmBtu/hr) Estimated Potential Capacity: 3 28 Current Capacity: Planned Capacity: Ozark Border Electric Coop; Scott-New Madrid-Miss Elec Coop; Southwestern Power Admin; Union Utilities in County: D. ENVIRONMENTAL BENEFITS OF UTILIZATION Potential Current Methane Reduction (tons/yr): 5,199 0 CO2 Equivalent of CH4 Reduction (tons/yr): 109,181 0 Emissions Avoided by Fossil Fuel Displacement: Electricity Generation Project Direct Use Project CO2 (tons/yr) SO2 (tons/yr) CO2 (tons/yr) SO2 (tons/yr) Coal: 22,100 140 15,656 143 Fuel Oil: 18,139 117 12,850 75 Natural Gas: 0 0 12,197 8,641 E. CONTACT INFORMATION Landfill Owner Landfill Operator Contact Name: Tim Selzer Jacky Allender Mailing Address: 15250 Old Bloomfield Rd., Box 115 Star Route Box 115 Phone Number: 573-624-8135 573-624-8135

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		Missouri Pass SLF		Landfill Categor	ry: Candidate
	A. G	ENERAL LANDFILL INFO	RMATION		
Landfill Owner:	BFI of St. Louis, Incor	porated Annual	l Acceptance Rate	(tons):	421,596
Landfill Owner Type:	Private	Year A	annual Acceptance	Rate Reported:	1994
Alternative Landfill Name:	St. Louis County SLF	Design	Capacity (tons):		
City:		Acres (Currently Landfille	ed (acres):	72
County:	St. Louis	Averag	ge Depth (feet):		
State:	MO	Waste-	in-Place (tons):		11,939,306
Year Open:	1976	1998 W	Vaste-in-Place (ton	s):	13,076,383
Year Closed:	2002				
		B. LANDFILL GAS COLLEG	CTION		
Estimated Methane Generati	ion (mmscf/d):	3.	.76		
LFG Collection System Statu	ıs:				
Current LFG Collected (mms	scf/d):				
Collection and Treatment Sy	stem Required Under NS	PS/EG:	No		
<u> </u>		C. LANDFILL GAS UTILIZ	ATION		
Current Utilization:					
Utilization System Statu	ıs: Unknown				
Utilization System Type					
Utilization System Start					
Electric Utility Provider					
Natural Gas Provider(s)					
Energy Purchaser(s):					
Capacity:	Electric	ity Generation Project (MW)	OR	Direct Use Project (mmBtu	/hr)
Estimated Potential Cap	pacity:	1	12		118
Current Capacity:					
Planned Capacity:		8	.5		111
Utilities in County:	Kirkwood F	Electric Light Dept; Union Elect	ric Company		
	D. ENVI	RONMENTAL BENEFITS O	F UTILIZATION	N	
		Potential		Current	
Methane Reduction (tons/yr)	:	1 otentu	21,754	Carrent	0
CO2 Equivalent of CH4 Red			456,832		0
2.2.2 2quironom of CII i Rem	<i>(vo.um yr)</i> .				
T · · · · · · · · · · · · · · · · · · ·	E ID: I	1	- ·	1	_

Emissions Avoided by Fossil Fuel Displacement:	Electricity Generation Project		Direct Use Project	
	CO2 (tons/yr)	SO2 (tons/yr)	CO2 (tons/yr)	SO2 (tons/yr)
Coal:	93,135	589	65,509	596
Fuel Oil:	76,441	492	53,767	313
Natural Gas:	51,400	0	36,154	0

E. CONTACT INFORMATION

Landfill Owner

Landfill Operator Contact Name: John Bean, Director of Marketing John Bean, Director of Marketing Mailing Address: 757 North Eldridge 757 North Eldridge P.O. Box 3151 P.O. Box 3151 Phone Number: 281-870-7450 281-870-7450 Fax Number: 281-584-8043

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Newton-McDonald County SLF Landfill Category: Candidate A. GENERAL LANDFILL INFORMATION Landfill Owner: Newton-McDonald LF Board Annual Acceptance Rate (tons): Landfill Owner Type: Public Year Annual Acceptance Rate Reported: 1993 Alternative Landfill Name: Design Capacity (tons): City: Neosho Acres Currently Landfilled (acres): 123 County: Newton Average Depth (feet): 78 State: MO 1998 Waste-in-Place (tons): 2,500,000 2,500,000 Year Open: 1975 1998 Waste-in-Place (tons): Year Closed: 1993 **B. LANDFILL GAS COLLECTION** 1.06 Estimated Methane Generation (mmscf/d): LFG Collection System Status: Current LFG Collected (mmscf/d): No

Collection and Treatment System Required Under NSPS/EG:

C. LANDFILL GAS UTILIZATION

Current Utilization:

Utilization System Status: Potential Utilization System Type: Unknown

Utilization System Start Year: Electric Utility Provider(s): Natural Gas Provider(s):

Energy Purchaser(s): State College, Industries

Capacity: Electricity Generation Project (MW) OR Direct Use Project (mmBtu/hr) Estimated Potential Capacity: 3 33 Current Capacity: Planned Capacity: 1.0 11

Empire District Electric Co; New-Mac Electric Coop Inc; Ozark Electric Cooperative Inc; Southweste Utilities in County:

D. ENVIRONMENTAL BENEFITS OF UTILIZATION Potential Current Methane Reduction (tons/yr): 6,114 0 CO2 Equivalent of CH4 Reduction (tons/yr): 128,386 0 Emissions Avoided by Fossil Fuel Displacement: Electricity Generation Project Direct Use Project CO2 (tons/yr) SO2 (tons/yr) CO2 (tons/yr) SO2 (tons/yr) Coal: 26,046 165 18,410 168 Fuel Oil: 21,378 138 15,110 88 Natural Gas: 0 0 14,375 10,160

E. CONTACT INFORMATION

Landfill Operator

Landfill Owner

Contact Name:	Jack Hensley	Jack Hensley
Mailing Address:	525 Austin Avenue	525 Austin Avenue
Phone Number: Fax Number:	417-451-2751	417-451-2751

^{*} Itallicized indicates values estimated by EPA. December 5, 1998 State: MO 11 Page:



			Rumble SLF	II		Landfill Category:	Current
		A. Gl	ENERAL LANDFILL I	NFORMAT	ION		
Landfill Owner:	WMI		A	nnual Accep	tance Rate ((tons):	224,628
Landfill Owner Type:	Private		Y	ear Annual A	Acceptance l	Rate Reported:	1994
Alternative Landfill Na	me:		D	esign Capaci	ity (tons):		
City:	Sugar C	Creek		cres Current		d (acres):	57
County:	Jacksor		Average Depth (feet):				100
State:	MO		1994 Waste-in-Place (tons):			s):	3,743,617
Year Open:	1998			998 Waste-in	,	•	4,366,851
Year Closed:	2002		1770 music in 1 mee (1011s).				
		I	B. LANDFILL GAS CO	LLECTION			
Estimated Methane Ger	neration (mmsc	f/d):		1.53			
LFG Collection System			Ope	erational			
Current LFG Collected			1	1.9			
Collection and Treatme	` '	uired Under NSP	S/EG:	Yes			
	ne system requ		C. LANDFILL GAS UT		1		
Current Utilization:							
Utilization System	Status:	Operational					
Utilization System		Direct Thern	nal				
Utilization System		1998	141				
Electric Utility Pro		1990					
Natural Gas Provid	` '	F . O . 6	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1				
Energy Purchaser(s):	Fort Osage S	chool District				
Capacity:		Electrici	ty Generation Project (M	W) (OR	Direct Use Project (mmBtu/h	r)
Estimated Potentia	al Capacity:			5			48
Current Capacity:				0.8			40
Planned Capacity:							
Utilities in County:		Independenc	e Power & Lt Dept; Kans	sas City Pow	er & Light (Co; Missouri Public Service Co	Div; So
		D. ENVIR	CONMENTAL BENEFI	TS OF UTI	LIZATION		
			Pot	ential		Current	
Methane Reduction (tor	ıs/yr):				8,874		7,323
CO2 Equivalent of CH4	= '	ns/vr):			186,360		153,791
		J · / ·					
Emissions Avoided by F	Fossil Fuel Disp	olacement:	Electricity Gene	ration Projec	ct	Direct Use Projec	rt
			CO2 (tons/yr)	SO2 (to	ns/yr)	CO2 (tons/yr) SO	02 (tons/yr)
		Coal:	37,885		240	26,724	243
		Fuel Oil:	31,095		200	21,934	128
	3.7						
	IV	atural Gas:	20,908		0	14,749	0
		Landfill (E. CONTACT INFOR	RMATION		Landfill Operator	
Contact Name:	D:1111 C:		JWIICI	Dill	T 0.		
Contact Name.	Bill Upman, Si	ite Engineer		Bill C	Jpman, Site	Engineer	
Mailing Address:	2031 North Co	ourtney Road		2031	North Court	tney Road	
DI N. I							
Phone Number:	816-461-5999			816-4	61-5999		
Fax Number:							
* Italliais ad in discours	duan catini t - 1	by EDA	D	omber 5, 100	10	State: MO P	. 10
* Itallicized indicates va	uues estimated	DY EPA.	Dec	ember 5, 199	0	State: MO Page	: 12

^{*} Itallicized indicates values estimated by EPA.

			Show Me Regiona	l SLF		Landfill Category:	Candidate	
		A. Gl	ENERAL LANDFILL IN		ION	, ,		
Landfill Owner:	Allied '	Waste Industries	Aı	nnual Accept	ance Rate (tor	ns):	60,563	
Landfill Owner Type:	Private		Ye	ear Annual A	cceptance Rat	te Reported:	1994	
Alternative Landfill N	Name:			Design Capacity (tons):				
City:	Warren	Varrensburg Ac			y Landfilled (a	acres):	69	
County:	Johnson		Average Depth (feet):					
State:	MO		1998 Waste-in-Place (tons):				480,000	
Year Open:	1994				480,000			
Year Closed:	2010		1998 Waste-in-Place (tons):					
		E	. LANDFILL GAS COI	LECTION				
Estimated Methane G	eneration (mmsc	f/d):		0.17				
LFG Collection System	m Status:							
Current LFG Collected								
Collection and Treatm		uired Under NSP	S/EG:	No				
	, ,		C. LANDFILL GAS UTI	LIZATION				
Current Utilization:								
Utilization System	m Status:	Potential						
Utilization System		Unknown						
Utilization System		CIRIIOWII						
Electric Utility P								
Natural Gas Prov								
Energy Purchase	* *							
Ellergy Furchaser	1(8).							
Capacity:		Electricit	y Generation Project (MV	V) (OR I	Direct Use Project (mmBtu/h	r)	
Estimated Potent	ial Capacity:			1			5	
Current Capacity	:							
Planned Capacity	/:							
Utilities in County:		Missouri Pul	olic Service Co Div: Osag	e Vallev Ele	Coop Assn: 5	Southwestern Power Admin	UtiliCo	
Cumues in County.			ONMENTAL BENEFIT					
		D. ERVIR			ZIZATION	Comment		
M. D. J. C.			Pote	ntial	001	Current	0	
Methane Reduction (to	= '				981		0	
CO2 Equivalent of CH	14 Reduction (to	ns/yr):			20,597		0	
Emissions Avoided by	Fossil Fuel Disi	olacement:	Electricity Gener	ation Proiec	t	Direct Use Projec	t	
	r		CO2 (tons/yr)	SO2 (tor			02 (tons/yr)	
		Coal:	3,946	302 (10)	25	2,953	27	
		Fuel Oil:	3,239		21	2,424	14	
	N	atural Gas:	2,178		0	1,630	0	
			E. CONTACT INFOR	MATION				
		Landfill (Owner			Landfill Operator		
Contact Name:	Joe Benco			Kent l	Raderick, Ope	rator		
Mailing Address:	8301 Indiana				30x 866			
Maning Address.	0501 IIIUIAIIA			1.0.1	JUA 000			
Phone Number:	016 500 6066			0165	47.7607			
I HORE INUITION.	816-523-6266			816-7	47-7697			
Fax Number:								



			Southeast SL	F		Landfill Ca	tegory: Candidate
		A. G	ENERAL LANDFILL II	NFORMA	TION	-	
Landfill Owner:	Allied '	Waste (old LWS) A	nnual Acce	ptance Rate	(tons):	394,262
Landfill Owner Type:	Private		Y	ear Annual	ear Annual Acceptance Rate Reported:		
Alternative Landfill N	lame:		D	esign Capa	city (tons):		
City:	Kansas	City	A	cres Curren	tly Landfille	ed (acres):	118
County:	Jackson	ı		verage Dep			100
State:	MO			aste-in-Pla			8,071,606
Year Open:	1974		19	998 Waste-i	in-Place (ton	as):	8,773,485
Year Closed:	1999						
		ŀ	B. LANDFILL GAS CO	LLECTIO	N		
Estimated Methane G	-	f/d):		2.66			
LFG Collection Syste			Ope	rational			
Current LFG Collecte							
Collection and Treatn	nent System Requ			Yes	N 7		
			C. LANDFILL GAS UT	ILIZATIO	N		
Current Utilization:							
Utilization Syste		Planned					
Utilization Syste	• •	Direct Thern	nal				
Utilization Syste		1998	D.				
Electric Utility P		Kansas City	Power				
Natural Gas Prov		DOE (Allied	(Cional)				
Energy Purchase	I(S):	DOE (Allied	i Signai)				
Capacity:		Electrici	ty Generation Project (MV	W)	OR	Direct Use Project (mr	mBtu/hr)
Estimated Poten	tial Capacity:			8			83
Current Capacity							
Planned Capacity	y:			5.1			58
Hilitias in Country		Indonondono	a Davian & Lt Danti Vana	as City Day	rom & Linht	Co. Missouri Dublic Sorr	ias Ca Divy Sa
Utilities in County:		-	e Power & Lt Dept; Kans	-	_		ice Co Div; so
		D. ENVIR	RONMENTAL BENEFI	IS OF UT	ILIZATION	\	
			Pote	ential		Curr	ent
Methane Reduction (t	- ·				15,391		0
CO2 Equivalent of CI	H4 Reduction (to	ns/yr):			323,207		0
Emissions Avoided by	Fossil Fuel Dis	placement:	Electricity Gener	ration Proje	ect	Direct Use	Project
J	1		CO2 (tons/yr)	SO2 (to		CO2 (tons/yr)	SO2 (tons/yr)
		Coal:	65,510		414	46,347	422
			, in the second			·	
Fuel Oil:			53,768		346	38,040	222
	N	latural Gas:	36,154		0	25,578	0
			E. CONTACT INFOR	MATION			
		Landfill (Owner			Landfill Operator	
Contact Name:	Joe Benco			Joe 1	Benco		
Mailing Address:	8301 Indiana						
Mailing Address:	osoi maiana			8301	l Indiana		
Dhono N							
Phone Number:	816-523-6266			816-	747-7697		



Fax Number:

			Springfield SLF			Landfill Cates	gory: Candidate	
		A. G	ENERAL LANDFILL INF	ORMAT	TION			
Landfill Owner:	City of	Springfield	Ann	ual Accer	tance Rate	(tons):	90,000	
Landfill Owner Type:	Public		Year	Annual A	Annual Acceptance Rate Reported: 1998			
Alternative Landfill N	ame:		Desi	gn Capacity (tons):				
City:	Springf	ield	Acre	s Currently Landfilled (acres): 235				
County:	Greene		Ave	rage Dept	th (feet):		90	
State:	MO	Waste			ce (tons):		5,266,305	
Year Open:	1975		1998			s):	5,495,275	
Year Closed:	2016							
			B. LANDFILL GAS COLL	ECTION	N			
Estimated Methane Ge	eneration (mmsc	f/d):		1.82				
LFG Collection Syster	n Status:							
Current LFG Collected	d (mmscf/d):							
Collection and Treatm	ent System Req			No				
			C. LANDFILL GAS UTIL	IZATIO	N			
Current Utilization:								
Utilization Syster	n Status:	Planned						
Utilization Syster	n Type:	Unknown						
Utilization Syster	n Start Year:							
Electric Utility Pr	ovider(s):							
Natural Gas Prov	ider(s):							
Energy Purchaser	r(s):	local utility						
Capacity:		Electrici	ty Generation Project (MW)		OR	Direct Use Project (mmI	Btu/hr)	
	. 1.6	Diceute	Toject (14147)			Direct Ose Froject (min		
Estimated Potenti				6			57	
Current Capacity:								
Planned Capacity	:							
Utilities in County:		Empire Dist	rict Electric Co; Ozark Elect	ric Coope	erative Inc; S	Sho-Me Power Corporation	; Southwest E	
		D. ENVII	RONMENTAL BENEFITS	OF UTI	LIZATION	N .		
			Potent	ial		Currer	nt	
Methane Reduction (to	ons/yr):				10,543		0	
CO2 Equivalent of CH	4 Reduction (to	ns/yr):			221,403		0	
Emissions Avoided by	Fossil Fuel Disp	olacement:	Electricity Generat	-		Direct Use P	·	
			CO2 (tons/yr)	SO2 (to	ons/yr)	CO2 (tons/yr)	SO2 (tons/yr)	
		Coal:	44,989		284	31,749	289	
		Fuel Oil:	36,925		238	26,058	152	
	Natural Gas:				0	17,522	0	
			E. CONTACT INFORM	ATION				
		Landfill	Owner			Landfill Operator		
Contact Name:	Bob Schaefer			Bob	Schaefer, O	perator		
Mailing Address:	P.O. Box 8368			840 1	Boonville			
maning radioss.	840 Boonville				Box 8368			
Phone Number:								
	417-864-1902			417-8	864-1902			
Fax Number:								



			Ch I I C'	CLE		I ICII C	Car P. L.
		A. Gl	St. Joseph City ENERAL LANDFILL		ION	Landfill Categor	ry: Candidate
Landfill Owner:	City of	St. Joseph				tons):	125,000
Landfill Owner Type:	Public	St. Joseph	Annual Acceptance Rate (tons): Year Annual Acceptance Rate Reported:				1998
Alternative Landfill Name:	1 done			Design Capac	-	Rate Reported.	1770
City:	St. Jose	nh		Acres Current	-	d (acres):	90
County:	Buchan			Average Dept	-	- ()-	80
State:	MO			1998 Waste-i		s):	2,995,346
Year Open:	1978			1998 Waste-ir	`		2,995,346
Year Closed:	2004				(,	<i>y y</i> -
		I	B. LANDFILL GAS CO	LLECTION	1		
Estimated Methane Generation	on (mmsci	f/d):		1.18			
LFG Collection System Statu		,-					
Current LFG Collected (mms							
Collection and Treatment Sys		iired Under NSP	PS/EG:	Yes			
			C. LANDFILL GAS UT	FILIZATIO	N		
Current Utilization:							
Utilization System Statu	ıs:	Planned					
Utilization System Type		Unknown					
Utilization System Start							
Electric Utility Provider		St. Josephs's	Power and Light				
Natural Gas Provider(s):	:	_	_				
Energy Purchaser(s):							
Capacity:		Electricit	ty Generation Project (M	IW)	OR	Direct Use Project (mmBtu	ı/hr)
			.,	4			37
Estimated Potential Cap Current Capacity:	acuy.			4			31
Planned Capacity:							
Trainied Capacity.							
Utilities in County:		Easton, City	of; Northwest Missouri	El Coop Inc;	Platte-Clay	Electric Coop Inc; Southwest	tern Power
		D. ENVIR	RONMENTAL BENEF	ITS OF UTI	LIZATION		
			Po	tential		Current	
Methane Reduction (tons/yr):	:				6,846		0
CO2 Equivalent of CH4 Redu	uction (tor	ıs/yr):			143,768		0
Emissions Avoided by Fossil	Fuel Disn	olacement:	Electricity Gene	eration Proje	ct	Direct Use Proj	iect
Zimosions rivolucu by 1 Ossit	i uci Disp	weenwitt.	CO2 (tons/yr)	SO2 (to			SO2 (tons/yr)
				502 (10			-
		Coal:	29,203		185	20,616	188

	Pote	ential	Curre	ent
Methane Reduction (tons/yr):		6,846		0
CO2 Equivalent of CH4 Reduction (tons/yr):		143,768	143,768	
Emissions Avoided by Fossil Fuel Displacement:	Electricity Generation Project		Direct Use Project	
	CO2 (tons/yr)	SO2 (tons/yr)	CO2 (tons/yr)	SO2 (tons/yr)
Coal:	29,203	185	20,616	188
Fuel Oil:	23,969	154	16,921	99
Natural Gas:	16,117	0	11,378	0
	E. CONTACT INFOR	MATION		

	Landfill Owner	Landfill Operator		
Contact Name:	Bruce Weedy	Bill Blackelter		
Mailing Address:	Room 204, City Hall	9431 50th Road S.E. Room 204 City Hall		
Phone Number:	816-271-4651	816-271-4651		
Fox Number:				

^{*} Itallicized indicates values estimated by EPA. Page: December 5, 1998 State: MO 16



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Wayne County SLF Landfill Category: Candidate A. GENERAL LANDFILL INFORMATION Landfill Owner: Allied Waste Industries Annual Acceptance Rate (tons): Landfill Owner Type: 1991 Private Year Annual Acceptance Rate Reported: Alternative Landfill Name: Design Capacity (tons): City: No reference available Acres Currently Landfilled (acres): County: Wayne Average Depth (feet): State: MO Waste-in-Place (tons): 75,653 Year Open: 1977 110,957 1998 Waste-in-Place (tons): Year Closed: **B. LANDFILL GAS COLLECTION** 0.04 Estimated Methane Generation (mmscf/d): LFG Collection System Status: Current LFG Collected (mmscf/d): Collection and Treatment System Required Under NSPS/EG: No C. LANDFILL GAS UTILIZATION Current Utilization: **Utilization System Status:** Potential Utilization System Type: Unknown Utilization System Start Year: Electric Utility Provider(s): Natural Gas Provider(s): Energy Purchaser(s): Capacity: Electricity Generation Project (MW) OR Direct Use Project (mmBtu/hr) 0 Estimated Potential Capacity: 1 Current Capacity: Planned Capacity: Arkansas Power & Light Company; Black River Electric Coop; Ozark Border Electric Coop; Southwe Utilities in County: D. ENVIRONMENTAL BENEFITS OF UTILIZATION Potential Current Methane Reduction (tons/yr): 227 0 CO2 Equivalent of CH4 Reduction (tons/yr): 4,761 0 Emissions Avoided by Fossil Fuel Displacement: Electricity Generation Project Direct Use Project CO2 (tons/yr) SO2 (tons/yr) CO2 (tons/yr) SO2 (tons/yr) 5 Coal: 789 683 Fuel Oil: 648 4 560 3 Natural Gas: 436 0 0 377

	Landfill Owner	Landfill Operator		
Contact Name:	Bob Doyle	Harold Lemons		
Mailing Address:	Star Route 4	Star Route, Box 115		
Phone Number: Fax Number:	314-222-8718	314-624-8135		

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E. CONTACT INFORMATION

* Itallicized indicates values estimated by EPA. December 5, 1998 State: MO



West County Disposal SLF Landfill Category: Current A. GENERAL LANDFILL INFORMATION Landfill Owner: Superior services, Inc. Annual Acceptance Rate (tons): 228,800 Landfill Owner Type: Private Year Annual Acceptance Rate Reported: 1998 Alternative Landfill Name: Superior Oak Ridge Design Capacity (tons): City: Ballwin Acres Currently Landfilled (acres): 129 County: St. Louis Average Depth (feet): State: MO Waste-in-Place (tons): 8,615,490 Year Open: 9,398,717 1975 1998 Waste-in-Place (tons): Year Closed: 2008 **B. LANDFILL GAS COLLECTION** Estimated Methane Generation (mmscf/d): 2.82 LFG Collection System Status: Current LFG Collected (mmscf/d): Collection and Treatment System Required Under NSPS/EG: Yes C. LANDFILL GAS UTILIZATION Current Utilization: **Utilization System Status:** Construction Utilization System Type: Medium Btu Utilization System Start Year: 1999 Electric Utility Provider(s): Natural Gas Provider(s): Energy Purchaser(s): Confidential Capacity: Electricity Generation Project (MW) OR Direct Use Project (mmBtu/hr) 9 Estimated Potential Capacity: 88 Current Capacity: Planned Capacity: 5.5 69 Kirkwood Electric Light Dept; Union Electric Company Utilities in County: D. ENVIRONMENTAL BENEFITS OF UTILIZATION Potential Current Methane Reduction (tons/yr): 16.315 0 CO2 Equivalent of CH4 Reduction (tons/yr): 342,623 0 Emissions Avoided by Fossil Fuel Displacement: Electricity Generation Project Direct Use Project CO2 (tons/yr) SO2 (tons/yr) CO2 (tons/yr) SO2 (tons/yr) Coal: 69,456 439 49,132 447 Fuel Oil: 57,007 367 40,325 235 Natural Gas: 0 0 38,332 27,115 E. CONTACT INFORMATION Landfill Owner Landfill Operator Contact Name: Brian Johnson Brian Johnson, Operator Mailing Address: One Honeycreek Corp. Center Sulfur Springs Road 1741 125 South 84th St., Suite 200 Phone Number: 414/479-7854 Fax Number:

* Itallicized indicates values estimated by EPA. December 5, 1998 State: MO Page:

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			West Lake SL	F		Landfill Cat	egory: Candida
		A. Gl	ENERAL LANDFILL IN		ION		
Landfill Owner:	Allied	Waste	Δ,	nnual Accen	tance Pate (tons):	950,000
Landfill Owner Type:	Private			Annual Acceptance Rate (tons): Year Annual Acceptance Rate Reported:			1998
Alternative Landfill N				esign Capaci	-	xaic Reported.	1770
City:		_			ty (tolis). y Landfilled	d (agras):	52
_	_	-			-	i (acies).	300
County:		118		erage Depth			
State:	MO			aste-in-Place		1	9,692,739 10,615,857
Year Open:	1976		1998 Waste-in-Place (tons):				
Year Closed:	2003	T.	3. LANDFILL GAS COI	LECTION			
			EANDFILL GAS COL				
Estimated Methane Ge		f/d):		3.13			
LFG Collection System							
Current LFG Collected				6.5			
Collection and Treatm	ent System Requ			Yes			
		(C. LANDFILL GAS UTI	LIZATION			
Current Utilization:							
Utilization Syster	n Status:	Planned					
Utilization Syster	n Type:	High Btu					
Utilization Syster	n Start Year:	1999					
Electric Utility Pr		Ameren UE					
Natural Gas Prov		LaClede Gas	Co.				
Energy Purchaser		Laclede					
Energy 1 dremaser	(5).	Luciede					
Capacity:		Electricit	y Generation Project (MV	V) ()R	Direct Use Project (mm	ıBtu/hr)
Estimated Potent	ial Capacity:			10			98
Current Capacity:							
Planned Capacity							99
Utilities in County:		Kirkwood El	ectric Light Dept; Union	Electric Con	npany		
		D. ENVIR	ONMENTAL BENEFIT	TS OF UTII	LIZATION		
			Pote	ntial		Curre	ent
Methane Reduction (to	ons/yr):				18,115		25,054
CO2 Equivalent of CH	4 Reduction (to	ns/yr):		3	380,421		526,126
Emissions Avoided by	Fossil Fuel Disp	placement:	Electricity Gener			Direct Use I	•
			CO2 (tons/yr)	SO2 (tor	ıs/yr)	CO2 (tons/yr)	SO2 (tons/yr)
		Coal:	77,349		489	54,552	496
		Fuel Oil:	63,485		409	44,774	261
	N	latural Gas:	42,688		0	30,106	(
			E. CONTACT INFOR	MATION			
		Landfill (WATION		Landfill Operator	
Contact Name:	Matt Vinceles			Donal	Andorser		
	Matt Kingsley					Division Manager	
Mailing Address:	13570 St. Chai	rles Rock Road		13570	St. Charles	Rock Road	
Dhana N. J							
Phone Number:	314-739-1919			314-7	39-1919		
Fax Number:							

